SANTA FE CLIMATE ACTION TASK FORCE

MEETING NOTES: MAY 14, 2015

CALL TO ORDER

A meeting of the Climate Action Task Force was called to order by Councilor Ives at 4:05pm.

ROLL CALL

Members Present

David Van Winkle
Jack McGowan
Owen Lopez
Robb Hirsch
Councilor Ives
Beth Beloff
Eliza Harrison
Johanna Whysner
Commissioner Kathy Holian
Kristina Fisher
Randy Grissom

Members Absent

Glenn Schiffbauer (excused)
David Coss
Julia Furry
Gov. George Rivera

Staff Present

John Alejandro, Renewable Energy Planner

Public Present

Lisa Randall, SFPS
Mary Schruben
Bette Booth
Ken Hughes

DISCUSSION ITEMS

1. Update: Johanna Whysner – Global Warming Express

Ms. Whysner provided an update to the task force about the Global Warming Express (GWE) receiving a proclamation from Santa Fe County recognizing their efforts to raising awareness and educating others about global warming. Commissioner Holian made the comment that the members of GWE were the best ambassadors Santa Fe had when it came to spreading the message of climate change. David Coss also commented on how the group was a great example of what kids can accomplish when they put their minds to it.

Ms. Whysner also called attention to GWE's efforts to create reusable shopping bags for the community in light of the paper bag fee ordinance going into effect. She stated that they will be at the Green Chamber of Commerce Green Festival making reusable bags that will then be donated/sold in the community, and invited the task force to stop by to participate in the making of the bags if anyone would like.

2. Water, Land Management & Food Security (WLMFS) Recommendations Report

Commissioner Holian reported that the WLMFS working group had met and voted on a set of program/policy recommendations related to water and land management for consideration by the task force. She then turned over the report to Ms. Fisher, who then went through a set of recommendations related to arroyo restoration and modernizing city and county construction codes to promote water infiltration and protect infrastructure, as reflected in Exhibit A.

The task force voted unanimously in favor of making these recommendations to the city's governing body.

3. Parks and Open Spaces Recommendation

Commissioner Holian asked Bette Booth to present a recommendation also voted on and approved by the WLMFS working group, related to water management and use in the city's public parks. Ms. Booth provided the recommendation document to the task force and went through it; see Exhibit B.

The task force voted unanimously in favor of recommending the parks water management pilot project to the city's governing body.

4. Working Groups Report

Energy Efficiency & Renewable Energy (EERE) and Finance: Ms. Beloff reported that the two working groups held a joint meeting prior to the task force meeting. A primary item discussed was the creation of a matrix to track the progress of the task force's energy-related recommendations to the governing body. It was reported that the draft of the matrix should be available by the next task force meeting. It was also discussed that an additional matrix would be created listing the city council districts where

each member of every task force working group lived, in order to better understand how they may engage their city councilor on task force related items.

Mr. McGowan noted that it was also discussed at the meeting that a group he has a relationship, Envision Charlotte, was interested in making a presentation at the task force meeting in June, to discuss how that city has ramped up its energy efficiency efforts. He stated that he would facilitate a call between the city and a representative from Envision Charlotte to schedule a meeting.

Mr. Van Winkle then gave an update on the PNM rate case, reporting that the hearing examiner of that case was recommending that the PRC reject that filing.

Waste Management & Recycling: Councilor Ives reported that there were two resolutions going through the committee process related to waste and recycling. The first being a zero-waste RFP for expertise in making recommendations on zero-waste processing options, the second being a single-stream recycling ordinance to encourage recycling in the community by moving all recycling items into a single-bin collection.

The councilor also informed the group that an urban land use working group was being formed in order to begin looking at ways the city could develop in a sustainable and responsible manner. The first meeting of the group was scheduled to occur in June.

4. Items from the Co-chairs

None were identified.

5. Items from the Task Force

None were identified.

6. Items from the Staff

None were identified.

7. Items from the Public

None were identified.

ADJOURNMENT

Chairman Ives adjourned the meeting at 5:45pm.

EXHIBIT A

Watershed Health Climate Adaptation Recommendations
for the Mayor's Climate Action Task Force
May 11, 2015

SUMMARY:

Climate change will likely result in Santa Fe receiving more of its annual precipitation in the form of rain, rather than snow, and in the form of fewer, more intense precipitation events. This Action Group is focusing on how the City can continue to adapt to these changes by capturing as much of this rain as possible for use within the watershed and by limiting the damage to City and private infrastructure from heavy precipitation events.

Members of the Water, Land Management & Food Security Subcommittee and the Finance Subcommittee of the Climate Action task force have been meeting over the last several months and have developed the following recommendations, many of which can be undertaken immediately.

In summary, the task force recommends that the City of Santa Fe:

1. **Update its assessment of the City's arroyos and develop a prioritization for restoration that considers, 1) increasing aquifer recharge, and 2) avoiding potential damage to infrastructure.**

a) Fund the priority restoration projects with strategies including:
   (1) Dedicating some of the Water Division surplus (since projects to increase aquifer recharge will store water to meet future needs/demand);
   (2) Using the Stormwater Surcharge funds to leverage federal dollars;
   (3) Applying for Youth Conservation Corps funding;
   (4) Creating a revolving loan fund to support restoration projects on private property;
   (5) Creating special improvement districts to support restoration projects on private property;
   (6) Applying for state, federal, and private grant funds in support of restoration, perhaps in partnership with local nonprofits; and
   (7) Impact investing, such as green bonds, social impact bonds, or crowd-bonding.

b) Study the creation of governmental structures that could support these efforts over the long term, such as arroyo associations that bring communities together to care for specific areas and coordinate restoration efforts on private property.

2. **Begin modernizing the City's construction codes to promote water infiltration and protect public and private infrastructure.**

RECOMMENDATIONS:

I. Restore Santa Fe's Arroyos to Protect Infrastructure & Optimize Aquifer Recharge

The City should update the *Arroyo Assessment Surveys of 10 Major Arroyos in the Santa Fe Watershed, November 2012,* originally commissioned by the City and performed by the Santa Fe Watershed Association, which found that in many parts of the city, arroyo erosion threatens infrastructure including trails, roads, bridges, and homes.

Arroyo restoration can be designed to optimize infiltration of water into the groundwater aquifer and maximize underground water storage. Today, most of the water that falls in heavy events is channeled quickly out of the watershed via storm drains, arroyos, and the Santa Fe River.

In addition, erosion from storms has exposed pipes and electrical cables in a number of arroyo reaches. Heavy precipitation events in the past two years have caused further costly damage to infrastructure, and these events are projected to occur with increasing frequency in the coming years.

The City should develop a comprehensive plan for arroyo restoration to optimize infiltration of water into the groundwater aquifer, maximize underground water storage, and prevent further infrastructure damage.

Restoration strategies would focus on "green infrastructure" such as the induced meandering techniques used in the Santa Fe River (e.g., boulder cross vanes, Zuni bowls, etc.). These techniques can halt arroyo down-cutting and bank erosion, raise arroyo beds where they are deeply down-cut, and protect public and private infrastructure.

An additional study should be undertaken of the city's geology to determine where the best areas are to recharge Santa Fe's aquifers. These areas can be prioritized for green infrastructure such as rain gardens, curb cuts, and permeable pavement. In addition, the plan for arroyo restoration should take water infiltration into consideration and be designed to maximize water capture where appropriate.

Actionable Items & Timeline:

1. Arroyo status update: $5K consulting contract, coupled with city staff time (August to October).
    1. Determine the annual cost of storms/flood damage to City infrastructure over the past 5-10 years. **Timeline: immediate.**

2. Update 2012 study to pinpoint arroyo locations where infrastructure is most at risk from arroyo degradation. **Timeline: summer 2015.**

2. Develop restoration plan and priorities: $200,000 (Q1 2016)

1. Complete a geological study of Santa Fe to identify areas where green infrastructure can maximize water infiltration/aquifer recharge.
2. Direct City Staff to study how "arroyo associations" might be developed to promote collaborative work in areas where both public and private property is impacted, and how they might be able to use special improvement districts to fund restoration in their areas.
3. Support City staff in its current efforts to fund this work (e.g., application for YCC Funding; FEMA grant proposal) and help coordinate those efforts so priority areas are addressed.

3. Fund and implement restoration beginning with the priority reaches utilizing Public/Private partnerships where applicable (private property for example). (TBD 2016)

<u>Potential Funding Strategies:</u>

1. **Dedicate a portion of the Water Division surplus to watershed restoration projects, particularly those with a focus on increasing aquifer recharge.**
   Since the funds in the Water Division surplus were collected for the benefit of securing the City's water supply and delivery system, it would be extremely appropriate to dedicate some of them to helping bank water for the long term by increasing aquifer recharge.

2. **Use the City's existing Stormwater Surcharge to leverage federal dollars for arroyo restoration.**
   The Stormwater Surcharge was put in place about a decade ago and generates over $3 million a year to fund employees and infrastructure projects though the Public Works Department. The City is currently using that money to try to leverage matching federal dollars to implement several restoration projects in the Arroyo Chamiso. Efforts like these should be supported and replicated.

3. **Apply for Youth Conservation Corps Funding.**
   The YCC program provides funding to put young people to work on green projects. The City could partner with Youthworks, the Santa Fe Watershed Association, the city's Children and Youth Commission and other non-profit partners to work to apply for this funding. Youthworks members would complete the projects while the city would coordinate the non-profit partners and the work. The work would be based on the proposed updated arroyo assessment completed by the Santa Fe Watershed Association

and would seek to train young workers for entry into the workforce with improved marketable skills. The City is already investigating this possibility.

4. **Create a revolving loan fund to support restoration efforts on private property.**
   This might be initially funded with some of the Water Division surplus money, but it would become self-sustaining as loans are repaid. The revolving loan funds would be accessible by any City residents who are seeking to implement green infrastructure on their property to prevent flood damage or increase aquifer recharge (where appropriate)—or perhaps also to reduce water use through measures such as rainwater harvesting.

5. **Create special improvement districts where City residents can assess themselves to fund restoration.**
   In the county, special improvement districts can be created in which the residents vote to assess themselves a fee to pay for the improvement. The county loans the district the up-front funds and is paid back over time with the proceeds of the fee (which goes with the property if property within the district is sold). The City should investigate whether something similar can be created within city limits to fund restoration, or if it can be cone in areas where city and county jurisdictions overlap.

6. **Apply for state and federal watershed restoration grants, perhaps in partnership with local nonprofits.**
   The state offers a number of watershed restoration grant opportunities, including the River Stewardship Program, Community Forestry Assistance Program, Invasive Plant Management, and Community Tree Planting, each of which might be appropriate for different projects. Similarly, there are federal funding opportunities, such as Community Development Block Grants, some of which are particularly targeted toward water projects. The City should explore applying for funding from these sources, perhaps in partnership with local nonprofits.

7. **Partner with nonprofits to apply for foundation grants.**
   Along with applying for state and federal funding, the City should investigate the possibility of partnering with local nonprofits to apply for foundation funding in support of watershed restoration.

8. **Explore the possibility of creating a joint City-County Water Authority to help oversee and funds these projects.**
   This could be an important entity to coordinate water policy across jurisdictional lines (since water itself crosses those lines) as well as to provide funding and support for things like the special improvement districts and revolving loan fund.

9. **Impact Investing/Bonding**
   Restoration projects are also good targets for green bonds. They might have potential for "social impact bonds" (aka "pay for performance") which would be repaid with the avoided costs of repairing flood damage. Finally, they might be good targets for crowd-bonding in which low-priced bonds are offered to local residents so that the community comes together to raise the upfront cost of a project (these have been implemented successfully in Denver: http://smartcitiescouncil.com/article/how-crowdfunding-and-mini-bonds-are-paying-better-denver)

II. Modernize City and County Construction Codes to Promote Water Infiltration and Protect Infrastructure

The City's development code states that we should "treat stormwater runoff as a valuable natural resource in Santa Fe, a community that is prone to drought, by encouraging water collection and infiltration on site." (*14-8.2 of the Land Development Code*) In some parts of the city, infiltration structures like stormwater basins or permeable pavement are already helping recharge our aquifers and help ensure that the City well field will have water available when we need it.

We can do more to improve city codes. The City should require green, water-smart infrastructure to be incorporated into new public construction projects as well as significant remodels of City-owned buildings. The City should also partner with the County to update their codes to optimize rainwater capture and infiltration. Infiltration can be expanded to include water harvesting for irrigation of parks and public green spaces.

Finally, the City should work to educate and encourage private property owners to take similar steps. One idea would be to designate "rain garden districts" where the official policy is to educate and encourage homeowners to incorporate curb cuts and rain gardens into their properties to avoid flood damage (the district could be selected based one the map of most frequently flooded areas of the city).

Funding Strategies

1. Because the primary initial expense of updating the codes is city staff time, we do not have a specific recommendation for dedicated funding at this point.

Actionable Items & Timeline:

1. Develop an ordinance to require green infrastructure improvements during new construction and significant remodeling, repair, and maintenance projects within the watershed. **Discuss with Public Works and Land Use Departments.**

2. Develop and adopt joint City/County development codes to optimize water infiltration from precipitation events, including 500-year storm events. **Timeline: TBD**

3. Incorporate new codes into the City/County Capital Improvement Plan (CIP) to increase infiltration of runoff from buildings, roads, parking lots, and other impermeable surfaces, including encouraging the use of semi-permeable surfaces and rain gardens where practicable. **Discuss with Public Works Department.**

4. Incorporate new codes into the City/County Codes to increase infiltration of runoff from existing residential and commercial buildings, roads, parking lots, and other impermeable surfaces, including encouraging the use of semi-permeable surfaces and rain gardens where practicable. **Timeline: Discuss with Public Works Department.**

5. Direct City staff to make recommendations of neighborhoods that might be designated as rain garden districts. **Discuss with Land Use Department.**

6. Redevelop and expand the city's booklet, *Stormwater as a Resource* (http://www.nmenv.state.nm.us/swqb/Storm_Water_as_a_Resource.pdf), into a homeowner's green-infrastructure manual. This could be designed similar to that developed by the city of Tucson, which instructs private property owners how to use rainwater harvesting techniques to prevent damage from flooding and water vegetation and should also include water conservation information. (http://www.tucsonaz.gov/files/transportation/2006WaterHarvesting.pdf) This is already being discussed by various departments at the city. **Timeline: TBD.**

Appendix I

City of Santa Fe Staff Conferred with:

Andrew Erdman
Noah Berke
RB Zaxus
Dave Pike
Michelle Guttierez
David Catanach
Melissa McDonald

Appendix II

City of Santa Fe Title 14 Excerpts (unofficial)

Stormwater - an amenity integrated into the landscape

14-8.2(A)(6) treat stormwater runoff as a valuable natural resource in Santa Fe…by encouraging water collection and infiltration on site

14-8.2(A)(11) integrate stormwater management measures into the landscape and site planning process…

14-8.2(A)(12) provide aesthetically pleasing solutions to stormwater management and erosion control measures by integrating measures into the overall landscape and site design

14-8.4(A)(1)This section requires water harvesting and encourages the development of alternate sources of landscape irrigation water…Water conservation, water harvesting and irrigation efficiency shall guide landscape design…

14-8.4(A)(2)…this Section 14-8.4 is part of the purpose and intent of Chapter 14, which is to enhance the appearance of Santa Fe's streets and public places in order to promote their role as community amenities…

14-8.4(E)…Alternative sources of irrigation water shall be developed, including harvested water from roof and site runoff.

14-8.4(E)(1)The landscaping plan shall include passive water harvesting for landscape irrigation purposes…

14-8.4(E)(1)(b)(i)…Detention and retention ponds should be integrated landscape features, rather than single-purpose flood control ponds.

14-8.4(I)(4) – {referring to parking lots}: …stormwater runoff shall be used to provide irrigation for the perimeter and interior plantings to the greatest extent possible…stormwater runoff water shall be harvested and infiltrated as close to where it falls as possible…

EXHIBIT B

Mayor's Climate Change Task Force

Water, Land Use and Food Security Sub-Committee

Parks and Open Spaces Recommendation

Our green infrastructure (parks, open space and trails) have an important role in climate mitigation through pollution abatement and cooling and controlling storm water runoff. In the next fifty years, we expect that Santa Fe weather will be hotter, dryer and more variable and our population will have increased - putting extreme pressure on these vital resources. We need to act now to be ready for these changes. Our most innovative recommendation is to:

Reduce water and water-related energy consumption in our parks and use the savings to fully fund parks maintenance. This is a win-win strategy – we reduce water and water-related energy use and fully fund parks maintenance without increasing the budget.

Currently, the Parks Division pays the same rates as commercial users – Tier 1 is $6.06 per 1,000 gallons up to 7,000 gallons. After that it jumps to $21.00 per 1,000 gallons. In most parks, Tier 1 is reached within minutes of turning on the irrigation. This costs an estimated City $2.2 million annually and de-incentivizes conserving water. If we could halve this expenditure through both a new tiered rate and water conservation, we could pay for maintenance of all of our parks without increasing the parks budget. We propose a new policy and set of procedures that would:

- Decrease water and water-related energy expenditures in our parks.
- Savings would stay in the Parks budget specifically for maintenance and water/energy workforce development

We propose a pilot project in six – eight parks. The results and lessons learned from this pilot project would inform the development of the new, more efficient parks water program:

Phase I Pilot Project:

- Identify six-eight parks for the pilot (select for different water needs, i.e. pocket, community, regional)
- Assess watering needs to establish a "water budget" for each park.
- Conduct a water and irrigation system audit and make necessary improvement to ensure that the system is performing at maximum efficiency.
- Establish a new water rate system for these parks with a "public use rate" for water used below the established water budget and increased rate for water used over the budget.
- Establish the mechanism for savings to stay within the Parks maintenance budget rather than going into the General Fund.

Phase II: Evaluate the experiences and lessons learned from the pilot project and develop and implement a plan to expand to other parks. Part of the plan would be to, over time, reduce turf and improve efficiencies (including exploring new technologies, staff training, public education) to decrease the amount of water needed in each park.

Next Steps: **30 days:** Staff/PARC/Water Conservation Committee conducts an analysis of water needs for all of Santa Fe's Parks, selects six –eight parks for the pilot and develops a proposal for how the system would work. **June – October:** Test the new system (Note: Parks water is only on from May to October so we need to move quickly.). **November:** Evaluate the pilot and make recommendations for next steps.

Lead: City Parks and Recreation Department and Water Division in partnership with the Parks and Recreation Advisory Commission (PARC) and Water Conservation Committee *Budget:* Staff time.

Other Recommendations Include:

1. ***Support the development and implementation of a Parks and Recreation Five-Ten Year Master Plan*** integrated with the Climate Task Force vision and recommendations. The last Parks Master Plan was developed in 2002; there is no Recreation Master Plan. Already Completed: The resolution supporting this will be going to City Council May 27. Funding has been included in the 2015-16 budget.

2. ***Support and implement an urban agriculture policy for our parks and open spaces***. Support a menu of alternatives including fee-based at-scale urban agriculture in appropriate open spaces. **Immediately: support the adoption of new "Community Garden Program Guidelines and Procedures" and "Community Garden Program Application Process" that were developed based on the results of and recommendations from the 2014 POSAC "Community Garden Program Evaluation and Lessons Learned". Recommend that Parks provide sufficient staff time/support or move the program to another entity.**

   Already Completed: 1) Community Garden Evaluation and Lesson Learned, 2) Drafting and vetting of new *Community Garden Guidelines and Procedures and Application Process*.

   Next Steps: **30 Days:** *Community Garden Guidelines and Procedures and Application Process* go to City Manager for approval. **3-6 months:** Staff implements new Guidelines and Procedures POSAC/PARC feeds results into the Santa Fe City and County Advisory Commission on Food Security, Water Conservation Advisory Committee and Mayor's Climate Change Task Force Water, Land and Food Security Committee policies and recommendations. **One Year:** Review/evaluate Parks Garden Program and the application of the new guidelines and application form.

3. **Support the creation of a "Friends of Park/Adopt a Park" program** to involve citizens, businesses, corporations, civic organizations and philanthropic tourism in supporting and maintaining our parks and open

spaces. To be resilient to climate change we need to explore new ways of working collaboratively. Involving neighborhoods and park users increases local ownership and gets people outdoors, connecting with their environment. POSAC is working with Parks and Recreation staff to develop a resolution and guidelines for this program.

Next steps: 90 days: Parks & Recreation staff/PARC define the program role and process. Develop and pass a resolution establishing the program. Promote and activate the program. **One year:** Program fully functioning. *Lead:* City Parks and Recreation Department in partnership with the Parks and Recreation Advisory Commission (PARC), neighborhood and community groups, businesses, etc.

Budget: Staff time for promoting the program and working with groups. (already proposed as part of the 2015-2016 budget).

4. Support the creation of an ***Intersectoral Garden Council*** to promote, support and coordinate services (educational and material) for urban agriculture in Santa Fe. In process in collaboration with La Familia, Earthcare, the Botanical Garden, POSAC/PARC, Community Garden Coordinators, the Railyard Stewards, Rancho de las Golondrinas and the Food Policy Council.